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DPD-0071-59  
Copy / of 5

7 January 1959

MEMORANDUM FOR: Deputy Director, DPD                    25X1A

SUBJECT : Alternate Oxygen System for [REDACTED]

1. The oft repeated [REDACTED] desires for a form of dual oxygen system have in the past been answered with a number of varied designs always short of acceptability. The July fatalities at FOG indicative of malfunctions in the oxygen system have served to rekindle [REDACTED] demands and efforts to engineer an acceptable dual system.

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2. Outstanding among the criteria for a dual system were the elements of simplicity of engineering, maintenance and the provision for metering oxygen automatically at the instant of primary system failure.

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3. During late summer 1958, [REDACTED] solicited LAC to conduct research leading to the developing of an alternate system while maintaining the above criteria uppermost in mind. In late November 1958, LAC installed in [REDACTED] # 360 a semi dual alternate oxygen system which showed promise of meeting criteria. Recent flights have indicated the need for minor refinements which are being performed progressively. Performance reports are to be forwarded to [REDACTED] by LAC and [REDACTED]

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4. Mr. Kelly Johnson during a visit to [REDACTED] on 7 January 1959, stated that research and development cost incurred in engineering the semi dual oxygen system amounted to \$19,000. This cost is to be borne by CHALICE and Air Force. He states that the cost of \$905 per mod does not include any portion of the developmental expenditures. It is expected that 80 men hours of work will be required to effect installation. Mr. Johnson further stated that mod kits and installation work sheets could be worked up to facilitate mod installation by assigned detachment engineers.

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5. Telecon between Colonel Sid Brewer AMC and [REDACTED] on 31 December 1958 revealed that FOG has approved this system for inclusion in their 5 newly purchased [REDACTED] Retrofit on all their field assigned [REDACTED] will be accomplished EPD.

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6. [REDACTED] is scheduled for a visit to WRSP IV and LAC for week of 12 January 1959. The opportunity to study this modification at LAC and to discuss performance with [REDACTED] will either result in recommendation for [REDACTED] acceptance or indicate need for further refinement.

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